AGREEMENT

THIS AGREEMENT is entered into this	day of	, 2011, by
and between the City of Lincoln, Nebraska, a mur	nicipal corporation, l	nereinafter referred to as
"City" and the Board of Regents, University of Ne	ebraska, University	of Nebraska-Lincoln,
hereinafter collectively referred to as "UNL."		

RECITALS

A.

The City proposes to engage UNL in accordance with the terms and conditions set forth herein to analyze pollutant loads from two watersheds within the City of Lincoln ("Development of Stormwater Discharge Pollutant Load Model for Holmes Lake Watershed - Year 5").

B.

UNL possesses certain skills, experience, education and competency to perform the Stormwater Discharge Pollutant Load Model on behalf of the City, and the City desires to engage UNL to conduct such Stormwater Discharge Pollutant Load Model on the terms herein provided.

C.

UNL hereby represents that UNL is willing and able to perform the Stormwater Discharge Pollutant Load Model in accordance with the Stormwater Discharge Pollutant Load Model proposal submitted with this Agreement.

NOW, THEREFORE, IN CONSIDERATION of the above Recitals and the mutual obligations of the parties hereto, the parties do agree as follows:

I. EMPLOYMENT OF UNL

The City hereby agrees to employ UNL to perform the Stormwater Discharge Pollutant Load Model and UNL hereby agrees to perform said Stormwater Discharge Pollutant Load Model. Said Stormwater Discharge Pollutant Load Model is more particularly set forth in those portions of UNL's Proposal dated October 7, 2011 described as "Development of Storm Water Discharge Pollutant Load Model for Holmes Lake Watershed (Year 5)" attached hereto as Attachment A and incorporated by this reference.

II. SCOPE OF SERVICES

UNL agrees to undertake, perform and complete in an expeditious, satisfactory and professional manner the Development of Storm Water Discharge Pollutant Load Model for Holmes Lake Watershed services set forth in Attachment A on behalf of the City.

III. TERMS OF AGREEMENT

The term of this Agreement shall commence January 1, 2012 through December 31, 2012, unless extended by agreement of both parties.

IV. COMPENSATION

The City agrees to pay UNL for the services set forth in Attachment "A" a sum not to exceed Sixty Seven Thousand Five Hundred Sixty-One Dollars and no cents (\$67,561.00). All payments will be made upon appropriate invoices to UNL and sent to Debra Arent, Office of Sponsored Programs, Alexander Building-West, 312 North 14th Street, Lincoln, NE 68588-0430.

Failure of the City to accept UNL's Stormwater Discharge Pollutant Load Model on the basis of differences of professional opinion shall not be the basis for rejection of the work performed by UNL or for nonpayment of UNL.

V. SERVICES TO BE CONFIDENTIAL

The Parties acknowledge that it may be necessary to disclose information to the other Party that is considered proprietary or confidential ("Confidential Information"). If the provider of information considers the information as Confidential Information, it shall be identified as such in writing or marked "Confidential". If orally disclosed to or observed by the recipient, a description of the Confidential Information shall be reduced to writing by the provider, marked "Confidential," and delivered to recipient within thirty (30) days of disclosure.

The recipient of Confidential Information agrees to keep In confidence and not to disclose Confidential Information of the provider to any person outside the recipient's organization or to any unauthorized person within recipients organization and not to use providers Confidential Information for any purpose other than the performance of recipient's obligations under this Agreement, without the prior written approval of provider. Recipient acknowledges it will treat providers Confidential Information in a manner consistent with recipient's treatment of its own similar Confidential Information. However, the foregoing limitations as to disclosure and use shall not apply to any portion of Confidential Information which:

- (i) was in the possession of recipient before receipt from provider; or
- (ii) is or becomes a mailer of public knowledge through no fault of recipient;

- (iii) is rightfully received by recipient from a third party without a duty of confidentiality; or
- (iv) is disclosed by provider to a third party without a duty of confidentiality on the third party; or
- (v) is independently developed by recipient and shown by documentation; or
- (vi) is disclosed publicly under operation of law.

Each party retains the right to refuse to accept any Confidential Information which is not considered to be essential to the completion of the Research.

Recipient shall not disclose or otherwise use Confidential Information disclosed under this Agreement for a period of five (5) years from the date of expiration or termination of this Agreement.

Upon request of provider, recipient shall return or destroy all Confidential Information. However, recipient may retain one (1) copy for archival purposes and to confirm compliance with this Agreement.

VI. TERMINATION OF AGREEMENT

Both parties may terminate this Agreement, in whole or part, for any reason for their own convenience upon at least ten days written notice.

If the Agreement is terminated by the City, UNL shall be paid for all services performed, non-cancellable obligations and reimbursable expenses incurred, not to exceed the abovementioned Agreement amounts, up until the date of termination.

UNL hereby expressly waives any and all claims for damages or compensation arising under this Agreement except as set forth in this paragraph in the event of termination.

In the event of such termination, UNL agrees that all work performed and all confidential information as described in Section V provided by UNL to the City or by the City to UNL shall remain confidential and shall not be provided to any person, firm, association or corporation without the consent of the City.

VII.

EQUAL EMPLOYMENT AND FAIR LABOR PRACTICES

In connection with the performance of work under this Agreement, UNL agrees that it shall not discriminate against any employee or applicant for employment because of race, color,

religion, sex, disability, national origin, age or marital status. In the employment of persons, UNL shall fully comply with the provisions of Chapter 11.08 of the Lincoln Municipal Code and shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, disability, national origin, age or marital status. UNL shall maintain fair labor standards in the performance of this Agreement as required by Chapter 73, Nebraska Reissue Revised Statutes of 1943 (as amended).

VIII. INTEREST OF UNL

UNL covenants that UNL presently has no interest, including but not limited to, other projects or independent contracts, and shall not acquire any such interest, direct or indirect, which would conflict in any manner or degree with the performance of the Stormwater Discharge Pollutant Load Model required to be performed under this Agreement. UNL further covenants that in the performance of this Agreement no person having any such interest shall be employed or retained by UNL under this Agreement.

IX. INDEMNIFICATION

Each party shall be responsible for its negligent acts and omissions and the negligent acts or omissions of its employees, officers, or directors to the extent allowed by law.

X. AUDIT PROVISION

UNL shall be subject to audit pursuant to Chapter 4.66 of the Lincoln Municipal Code and shall make available to a contract auditor, as defined therein, copies of all financial and performance related records and materials germane to this Agreement, as allowed by law.

XI. INDEPENDENT CONTRACTOR

The City is interested only in the results produced by this Agreement. UNL has sole and exclusive charge and control of the manner and means of performance. UNL shall perform as an independent contractor and it is expressly understood and agreed that UNL is not an employee of the City and is not entitled to any benefits to which City employees are entitled, including, but not limited to, overtime, retirement benefits, workmen's compensation benefits, sick leave and/or injury leave.

XII. NEBRASKA LAW

This Agreement shall be construed and interpreted according to the laws of the State of Nebraska.

XIII. INTEGRATION

This Agreement represents the entire agreement between the parties and all prior

negotiations and representations are hereby expressly excluded from this Agreement.

XIV. AMENDMENT

This Agreement may be amended or modified only in writing signed by both the City and UNL.

XV. CAPACITY

The undersigned person representing UNL does hereby agree and represent that he or she is legally capable to sign this Agreement and to lawfully bind UNL to this Agreement.

XVI. SEVERABILITY

If any provision of this Agreement shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of this Agreement is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

XVII. WAIVER OF CONTRACTUAL RIGHT

The failure of either party to enforce any provision of this Agreement shall not be construed as a waiver or limitation of that party's right to subsequently enforce and compel strict compliance with every provision of this Agreement.

XVIII. REPRESENTATIONS

Each party hereby certifies, represents and warrants to the other party that the execution of this Agreement is duly authorized and constitutes a legal, valid and binding obligation of said party.

IN WITNESS WHEREOF, UNL and the City do hereby execute this Agreement.

CITY OF LINCOLN, NEBRASKA Attest: By: Chris Beutler, Mayor of Lincoln **BOARD OF REGENTS** UNIVERSITY OF NEBRASKA-Lincoln Jeanne Wicks Director, Office of Sponsored Programs STATE OF NEBRASKA) ss. COUNTY OF LANCASTER) The foregoing instrument was acknowledged before me this day of , 2011, by Chris Beutler, Mayor of the City of Lincoln, Nebraska, on behalf of the City of Lincoln, Nebraska. Notary Public STATE OF NEBRASKA) ss. COUNTY OF LANCASTER) The foregoing instrument was acknowledged before me this 26 day of (1) ber, 2011, by Jeanne Wicks. Director, Office of Sponsored Programs.

Notary Public

GENERAL NOTARY - Státe of Nebraska DONNA B. DOUGLAS My Comm. Exp. March 12, 2013

PROJECT TITLE:	Development of Storm Water Discharge Pollutant Load Model for Holmes Lake Watershed (Year 5)	
SUBMITTED TO:	Ben Higgins, Project Director Engineering Services Public Works City of Lincoln 901 N. 6 th St. Lincoln, Nebraska 68508	
APPLICANT INSTITUTION:	Board of Regents, University of Nebraska, University of Nebraska-Lincoln 312 N 14 th Street Alexander Building West Lincoln, NE 68588-0430 Administrative Contact: Jennifer A Fitchett Ph: 402-472-2247 Email: jfitchett2@unl.edu	
PROJECT PERIOD:	January 1, 2012 through December 31, 2012	
AMOUNT REQUESTED	\$67,561	
PRINCIPAL INVESTIGATOR:	Bruce Dvorak, Professor Civil Engineering Department W348 Nebraska Hall University of Nebraska Lincoln, Nebraska 68588-0531	
SIGNATURES:		
Jeanne Wicks, Director, UNL Sponsor	Date 10-7-11 ored Programs	
Mayor Chris Beutler	_ Date	

Specific Activities:

There will be four specific activities for this task. The first activity will be to perform further analysis of the semi-continuous and grab sample data collected between 2008 and 2011, with a focus on tying the data trends to the physical characteristics of the two watersheds. Specifically preliminary data analysis has found that although the average storm water quality is generally similar between the two watersheds, for three water quality parameters there are statistically significant differences (e.g., total suspended solids, nitrate, and E. Coli). In addition, there are statistically significant differences in the overall mass loading estimates of the two watersheds. The focus of this activity will be to use GIS and other tools to better quantify the physical characteristics of the two watersheds. That information will be used to improve the interpretation of the water quality data from the 2008 to 2011 period.

The second activity will be to perform further analysis of the nitrogen and phosphorus isotope data collected during the 2010 and 2011 sampling years. The data will not be available until December 2011 and additional analysis and interpretation will be required to determine if the isotope data provide conclusive evidence of source(s) of nutrients within the two watersheds. It is anticipated that an additional report or portion of a report will be prepared to address how the isotope data is supportive of identifying the sources of nutrients and sediment within each of the watersheds.

The third activity will be to collaborate with the United States Geological Survey (USGS) Nebraska Water Science Center's staff assistance in analysis of the data to provide a comparison of storm sampling designs. The goal is to determine trade-offs in terms of cost and uncertainty from different possible sampling designs. Specifically UNL's faculty and graduate assistant will assist in providing data from the 2008-2011 period, as well as assisting with calculations to assess alternative storm sampling protocols which, based on past data, will have limited uncertainty but require fewer samples (and less cost) to monitor the overall water quality. This analysis will have significant impacts and cost benefits for future monitoring for Lincoln and locations with similar watersheds.

The last activity will be to incorporate all of the above into a final report on the above topics for the five-year study period. The report including both the 2008, 2009, 2010 and 2011 data, will be supplied by November 15, 2012.

Task Two: Characterization of Lincoln's Dry Weather Storm Drain Discharges

Task Two Overview

The proposed work concerns dry weather storm drain discharge characterization. The monitoring of dry weather flows from storm drains is to provide a field screening analysis for illicit connections and illegal dumping for either selected field screening points, and major storm drain outfalls. Approximately 20% of the storm drain field sampling stations will be monitored during this period covered by this project. This task will consist of three phases as discussed below.

Phase I. Visit Field Sampling Sites, Collect Samples and Record Observations.

- 1. UNL Civil Engineering will have a team of at least two students visit approximately 50 field sampling sites during the summer of 2012. Each site will be visited at least three days after a measurable rainfall. The field sites to be visited are listed in the "Dry-Weather Stormwater Monitoring for Summer 2011" and additional sites identified by the City of Lincoln by May 30, 2012. No more than 5 additional sites will be added to the list for each summer's monitoring, reflecting new outfall sites in newly developed portions of Lincoln and site to be re-sampled from the previous years.
- 2. UNL Civil Engineering will have a student visit each new dry weather monitoring site identified by the City of Lincoln for the 2013-2017 review period and report on the feasibility of accessing and physically sampling each site. It is anticipated that there will be no more than 90 additional sites to be visited.
- 3. UNL Civil Engineering will provide new information found concerning the storm drain outfalls during sample collection to the City.
- 4. UNL Civil Engineering will report the following concerning each site:
 - time, day, and weather during site visit, and
 - a narrative description of site appearance (e.g., if it appears that dry weather flows may have occurred).
- 5. If there is flowing water at a field site, UNL Civil Engineering will
 - collect two grab samples of water during a 24 hour period, with a minimum of 4 hours between samples,
 - prepare a narrative description of the water for the color, odor, turbidity, presence of an oil sheen or surface scum as well as any other relevant observations regarding the potential presence of non-storm water discharges or illegal dumping, and
 - a description of the flow rate.
 - if hazardous materials are discovered the Lincoln Fire Department Hazardous Spills Response Unit should be notified immediately. Illicit discharges or illegal dumping need to be reported immediately to the City of Lincoln and Lancaster County Health Department (LLCHD).
 - significantly above normal pollutant data or pollutant data where an illicit discharge may be suspected will also be reported immediately to the City of Lincoln and LLCHD.

Phase II. Analyze Samples and Perform Quality Control Analyses.

- 6. The analyses listed in Table 2 will be performed by University of Nebraska-Lincoln on water samples collected from each field site with flowing water. The total phosphorus may be performed by the UNL Water Sciences Laboratory.
- 7. UNL Civil Engineering (CIVE) will test half the samples in duplicate (over the course of the summer) to estimate the "relative percentage error" for each analysis performed by UNL CIVE.
- 8. UNL Civil Engineering will test at least 8 travel blank samples (over the course of the summer) for each analysis performed by UNL CIVE.
- 9. UNL Civil Engineering will determine the Minimum Detection Limit [MDL] (following Standard Methods for Water and Wastewater Analysis) at the start of the summer for each analysis performed by UNL CIVE.
- 10. UNL Civil Engineering will test at least 10 standard samples with known concentrations (over the course of the summer) for each analysis performed by UNL CIVE. A new MDL will be determined using this data.

Table 2. Summary of Laboratory Analyses

Max. Sample Hold

Procedure	Method	Time
Temperature	thermometer	On-site testing
Flow Measurement		On-site testing
pН	Probe	4 hours
Chlorine	Hach 8167 (Std. Methods 4500)	On-site testing
Chloride	Hach 8113	7 days
Total Copper	Std. Methods 3030 with Atomic Absorption	3 months
Detergents / Surfactants	Hach 8028	24 hours
Fluoride	Hach 8029 (US EPA 340.1)	7 days
Nitrate	Hach	7 days
Total Suspended Solids	Standard Method 2540	7 days
Turbidity	Standard Method 2130	4 hours

Phase III. Prepare Final Report.

11. UNL Civil Engineering will prepare a final report summarizing the field notes and water sample analysis data collected in the first three Phases. The final report will include several pages of discussion of the data and engineering suggestions. The final report will also include a discussion of the draft dry weather monitoring sites selected for the 2013-2017 period. The final report will include tables that make it easy to compare the 2011 results to those found in previous studies. Computer disks will be attached to the final report containing excel spreadsheets of data. Reports will be presented to the City of Lincoln staff by November 1, 2012 summarizing the summer's dry weather monitoring.

Budget Details

All equipment and supplies purchased by this project by UNL remain the property of UNL. This contract will be initiated as soon as possible after 1) appropriate approval by both UNL and the City of Lincoln, and 2) a qualified UNL student is recruited to carry out the work as specified above. Potentially, an additional Graduate Research Assistant may be paid a portion of Dr. Dvorak's budgeted salary to provide additional summer assistance while Dr. Dvorak serves as an Interim Administrator with UNL. The work will be carried out during the period between the approval date and December 31, 2012. The undergraduate student workers will be part-time students and full-time workers during the summer, thus a rate of 9% for benefits has been applied.

Budget

	Dry Weather	Wet Weather	Total
Personnel	Monitoring	Monitoring	
Principal Investigators			
B. Dvorak (Summer Salary: 0.8 mo.)	\$5,000	\$4,600	\$9,600
D. Admiraal (Summer Salary: 0.6 mo.)		\$6,000	\$6,000
Subtotal:	\$5,000	\$10,600	\$15,600
Fringe Subtotal x 0.30	\$1,500	\$3,180	\$4,680
Graduate Research Assistant (12 mo @ \$1600)	\$1,600	\$17,600	\$19,200
GRA Health Insurance		\$1,302	\$1,302
Graduate Fringe = GRA salary $x .36$	\$576	\$6,336	\$6,912
Undergraduate hourly worker (1@ 12 wks, 40 hrs,			
\$11/hr, and 1@10 wks, 30 hrs, \$10/hr)	\$8,280		\$8,280
Undergraduate worker Fringe = salary x .09	\$745		\$745
Personnel & Benefits Total	\$17,701	\$39,018	\$56,719
Lab Testing Fees			
Metals and nutrients	\$1,100		\$1,100
Materials, Supplies, Equipment Maintenance	\$2,500	\$400	\$2,900
Travel	\$700		\$700
TOTAL DIRECT COSTS	\$22,001	\$39,418	\$61,419
Indirect Costs Rate x .10	\$2,200	\$3,952	\$6,142
TOTAL PROJECT COSTS (A-F)	\$24,201	\$43,360	\$67,561